REMARKS

This Preliminary Amendment accompanies a Request for Continued Examination, and is a response to the Final Office Action of July 12, 2007. Applicants have carefully considered the rejections of the Examiner in the above-identified application. In light of this consideration, Applicants believe that the claims as now amended are allowable. Applicants respectfully request reconsideration of the rejection of the claims now pending in the application.

In the first office action new drawings where indicated as required. Claims 1, 2, 4, 6, 7, 9, and 10 – 12, have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,112,203 to Bharat et al. (hereinafter Bharat) in further view of U.S. Patent No. 6,886,129 to Raghavan et al. (hereinafter Raghavan). Claims 3, 5, 8, 10, 13, and 15, where rejected under 35 U.S.C. §103(a) as being unpatentable over Bharat and Raghavan in view of U.S. Patent No. 6,633,868 to Min et al. (hereinafter Min).

In the second office action claims 1-15 were rejected under 35 U.S.C. §101 as directed to non-statutory subject matter. Claims 1, 6 and 11, were rejected under 35 U.S.C. §112. Claims 1, 2, 4, 6, 7, 9, 11, 12, and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bharat in further view of U.S. Patent No. 5,924,104 to Earl (hereinafter Earl). Claims 3, 5, 8, 10, 13, and 15, a were rejected under 35 U.S.C. §103(a) as being unpatentable over Bharat and Earl in further view of Min.

In the third office action claims 1-15 were rejected under 35 U.S.C. §101 as directed to non-statutory subject matter. The rejection of claims 1, 6 and 11, under 35 U.S.C. §112 was withdrawn. Claims 1, 2, 4, 6, 7, 9, 11, 12, and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bharat in

further view of Earl. Claims 3, 5, 8, 10, 13, and 15, were rejected under 35 U.S.C. §103(a) as being unpatentable over Bharat and Earl in further view of Min.

In this fourth office action claims 1-15 have been rejected under 35 U.S.C. §101 as directed to non-statutory subject matter. Claims 1-15, are rejected under 35 U.S.C. §112, first paragraph. Claims 1, 2, 4, 6, 7, 9, 11, 12, and 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Bharat in further view of Earl. Claims 3, 5, 8, 10, 13, and 15, are rejected under 35 U.S.C. §103(a) as being unpatentable over Bharat and Earl in further view of Min.

Claims 1-15 have been rejected under 35 U.S.C. §101 as directed to non-statutory subject matter. The independent claims have been amended as per the Examiner's suggestions in the Office Action. The Applicants respectfully request allowance of claims 1-15.

Claims 1-15, are rejected under 35 U.S.C. §112, because the original specification as filed provides no support for "a collective table of content set" or "a resultant table of content set". The language "a collective set" is found in the claims as originally filed. The claims as filed are considered as part of the specification and thus ipso facto supported by the specification. The "table of content" language was inserted by amendment in an attempt to clarify the claims, the support for which is found all over the specification as filed, including in the title of the application. The term "resultant" is found in the specification on page 8 last sentence, and the synonymous term "result" is found on page 7 last sentence; page 8 line 22; page 11 line 19; and page 12 line 4. The specification and claims are written for those skilled in the art and will be understood by those so skilled.

Claims 1-15, are rejected under 35 U.S.C. §112, because the original specification as filed provides no support for "a document representation stored in memory". The Examiner is correct so far as noting that the word "memory" does

not appear in the specification. However, those skilled in the art will readily recognize from the context of the claims that a "memory" is implicit in an automated methodology which performs recursive application of a page-level link analysis to a linked candidate document page. The Applicants with the addition of the word "memory" have simply made explicit that which is implicit. Please see the attached §132 Declarations for what one skilled in the art will understand, namely that a system memory is implicit and necessary.

The law is clear that the legal teaching of a specification is its teaching to a skilled and prior-art-knowledgeable artisan, not a layman or examiner, and the specification is not merely read literally (per se) or in a vacuum. As stated by the Federal Circuit in <u>Case v. CPC International, Inc.</u>, 730 F.2d 745, 221 U.S.P.Q. 196 at 201 (Fed. Cir. 1984), "35 USC §112 does not require a specific teaching of that which is already known to one of ordinary skill". As emphasized by the CCPA in 1981 in <u>In re Lang</u>, 644 F.2d 856, 209 U.S.P.Q. 288 at 294, the specification disclosure "must be read in light of the knowledge possessed by those skilled in the art, and that knowledge can be established . . . by reference to patents and publications available to the public prior to appellant's filing date [or by factual affidavits by experts]. A very important and often unappreciated legal doctrine is that a specification includes, as a matter of law, both any actually cited references, <u>and also any well known art even if not cited or incorporated</u>. The CCPA clearly restated in 1981 in <u>In re Howarth</u>, 654 F.2d 103, 210 U.S.P.Q. 689 at 691-2, the principle that <u>well known</u> art is legally a part of the specification and drawings, and does not need to be cited or described within the per se specification to provide legal support. "What is conventional knowledge will be read into the disclosure." 210 U.S.P.Q. 689 at 691-2. <u>In re Howarth</u> was cited with approval by the Federal Circuit in <u>DeGeorge v. Bernier</u>, supra. The principle was directly applied in <u>Lindemann Maschinenfabrik GMBH</u>, supra. As pointed out in the treatise "Patents" by Chisum at 7.03(2): "In <u>Webster Loom Co. v. Higgins</u>, the Supreme Court stated that 'That which is common and well known is as if it were written out in the patent

and delineated in the drawings,' and a number of lower court decisions refer to what is 'well known.' . . . The person skilled in the art under §112 should be deemed to know 'all prior art which is generally and reasonably available to the public.' The Court of Customs and Patent Appeals adopted such a standard in In re Howarth [supra]. Even before In re Howarth, supra, in In re Chilowsky, 43 CCPA 775, 780, 229 F.2d 457, 460, 108 U.S.P.Q. 321, 324 (1956), the CCPA had stated at 324 as to the 35 U.S.C. §112 disclosure issue: "It is well settled that the disclosure of an application embraces not only what is expressly set forth in words or drawings, but what would be understood by persons skilled in the art. As was said in Webster Loom Co. v. Higgins et al., 105 U. S. 580, 586, the applicant 'may begin at the point where his invention begins, and describe what he has made that is new and what it replaces of the old. That which is common and well known is as if it were written out in the patent and delineated in the drawings' . . . to permit them to form an unwritten part of the disclosure of the application. Controlling Federal Circuit pronouncements on several aspects of 35 U.S.C. §112 were restated in the Court's decision thereon by Judge Rich in 1986 in Hybritech Inc. v. Monoclonal Antibodies, Inc., 231 U.S.P.Q. 81, 93-94. Removal of the rejection of claims 1-15 under 35 U.S.C. §112 is respectfully requested.

Claims 1, 2, 4, 6, 7, 9, 11, 12, and 14, have been rejected under 35 U.S.C. §103(a) as being unpatentable over Bharat in further view of Earl. Bharat teaches that in a computerized method, a set of documents is ranked according to their content and their connectivity by using topic distillation. The documents include links that connect the documents to each other, either directly, or indirectly. A graph is constructed in a memory of a computer system. In the graph, nodes represent the documents, and directed edges represent the links. Based on the number of links connecting the various nodes, a subset of documents is selected to form a topic. A second subset of the documents is chosen based on the number of directed edges connecting the nodes. Nodes in the second subset are compared with the topic to determine similarity to the topic, and a relevance weight

is correspondingly assigned to each node. Nodes in the second subset having a relevance weight less than a predetermined threshold are pruned from the graph. The documents represented by the remaining nodes in the graph are ranked by connectivity based ranking scheme.

It is essential to the understanding Bharat that *Bharat is directed to a search engine* and as such is sorting through pages already identified by a simple word string search (please see column 1, lines 14-54). Bharat is concerned with solving the problem of answering a search engine query, and thus with ranking <u>a set of documents</u> to point to in response to that query. The Applicants however, are teaching that having identified where one document page is, how to find and pull together all relevant pages associated with that document into a single coherent document (please see page 5, first paragraph, of the Applicant's specification). A single coherent document representation suitable for subsequent printing and downloaded viewing. As such the Applicants teach "to weed out links which have properties that are not characteristic of *intra*-document links" and thus eschew all other documents. Bharat on the other hand, will not link (i.e. reject) self referencing pages so as not to unduly influence the search outcome (see column 5, lines 17-20) where Bharat provides:

> "If a link points to a page that is represented by a node in the graph, and both pages are on *different* servers, then a corresponding edge 213 is added to the graph 211. **Nodes representing pages on the same server are not linked. This prevents a single Web site with many self-referencing pages to unduly influence the outcome.** This completes the n-graph 211."

Thus Bharat is interested in only *inter*-document links for the sake of ranking links. Bharat does not assemble a single coherent document but a link list of search results responsive to a word query. Thus Bharat does NOT teach "weeding out the links from the cluster of links which have properties that are not characteristic of *intra*-document links".

Indeed, Bharat teaches away from the Applicants' invention. The Applicants teach to embrace that which Bharat discards. The cited text from the Applicants' specification page 7, lines 22-35 follows:

> "The link analysis process begins with the retrieval of the actual page 270 for analysis from the page identifier 110. This is done as will be well understood by those skilled in the art, by the page retrieval process 260. The retrieved page 270 is then used as input to both the progression-link identification module 210 and the link-cluster identification module 220. In the progression-link identification module 210, possible progression links 230 are identified primarily by means of a progression indicator, which is a textual or graphical clue that suggests the nature of the progression link. Link-cluster identification module 220 examines the page data 270 to identify link clusters and thereby possible table of content type links 240. *The possible progression links 230 and possible table of content links 240 are passed to module 250 for a final examination to weed out links which have properties that are not characteristic of typical intra-document links, e.g. they point to a different web server.* The final result is then a list of intra-document links 120 for the candidate page 270."

To paraphrase, the <u>possible</u> links are passed, to weed out those links which are not characteristic of typical intra-document links. An example of the links which are weeded out are those which point to a different web server. These links are not likely to be part of the document the Applicants are trying to assemble. Bharat does just the opposite as noted above so as to not unduly influence the outcome of the results to the user query.

Earl fails to provide what Bharat lacks, or provide any teaching relating to the Applicants' claimed invention. Earl provides link lists like Bharat but provides different presentation styles for the links to a user depending on whether they are intra-document or inter-document. Actually what Earl defines as intra-

document is what the Applicants would call intra-page, i.e. a link pointing to a location somewhere further down the same page. And thus what Earl calls inter-document is really inter-page. The teaching found in Earl is simply about providing some indicia to the viewer as to whether a hyper link will take the user elsewhere down the present page or to an entirely different page.

Please see the attached §132 Declarations for what one skilled in the art would consider to be "intra-document" versus intra-page. The Applicants are teaching assembling a document, and having identified the current page, have no interest in self referential links to that same page (they already have it) and thus would discard, or weed out, those links which Earl keeps.

Earl, having made a discrimination between two type of links, **keeps** all those links, choosing only to display them differently. The Applicants having discriminated between links to find some as not pointing to more of the desired document, **discard** or weed out those links. A gardener, having spotted a weed, does not keep that weed in their flower bed to display differently. Thus Earl does NOT examine "the collective set of identified candidate document pages to *weed out links* which have properties that are not characteristic of typical *intra*-document links".

In rebuttal to this previously presented argument above analogizing the terminology "weed out" to gardening, the Examiner has asserted that the Office "is forced to rely on the knowledge of one of ordinary skill in the art NOT of gardening but of computer technology". The Applicants must emphatically traverse as to how one skilled in the art would interpret this terminology. Please see the attached §132 Declarations for what those skilled in the art would consider to be meant by the terminology "weed out". Earl only discriminates, but does not discard, thus Earl does not "weed out".

Therefore, Earl in turn fails to provide what Bharat lacks, and thus the combination of Bharat and Earl fail to provide the requirements for a Prima Facie case of obviousness and thus the rejection is improper. The Applicants respectfully request reconsideration of claims 1, 2, 4, 6, 7, 9, 11, 12, and 14.

Claims 3, 5, 8, 10, 13, and 15, are rejected under 35 U.S.C. §103(a) as being unpatentable over Bharat and Earl in view of Min. As claims 3, 5, 8, 10, 13, and 15, depend from claims deemed allowable, they should be allowable as well. The Applicants respectfully request allowance of claims 3, 5, 8, 10, 13, and 15.

The undersigned Xerox Corporation attorney authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025.

In the event the Examiner considers personal contact advantageous to the disposition of this case, the Examiner is hereby requested to call the undersigned attorney at (585) 423-6918, Rochester, NY.

Respectfully submitted,

/Christopher D. Wait, Reg. #43230/

Christopher D. Wait
Attorney for Applicant(s)
Registration No. 43,230
Telephone (585) 423-6918

November 16, 2007
CDW/fsl
Xerox Corporation
Xerox Square 20A
Rochester, New York 14644